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## For Reference

Not to be taken from this room

# Warrant Article, 47

To see if the Town will raise and appropriate, or transfer from available funds, including the Emergency Planning Fund provided to the Town annually from Entergy, a sum of money to obtain and to stockpile Potassium Iodide pills in the schools in a quantity sufficient to provide for each student and staff member, in the emergency shelters in a quantity sufficient to provide for the maximum capacity of each shelter, and at a municipal building for distribution to citizens of the Town; or take any action in relation thereto.

# DRAFT EMERGENCY ISSUES/PLANS TO INCORPORATE STOCKPILING POTASSIUM IODIDE (KI) FOR THE PUBLIC IN THE TOWN OF DUXBURY

PREPARED BY

Mary Lampert, on behalf of the Duxbury Nuclear  
Advisory Committee  
January 2000

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# **Warrant Article, 47- YES**

To see if the Town will raise and appropriate, or transfer from available funds, including the Emergency Planning Fund provided to the Town annually from Entergy, a sum of money to obtain and to stockpile Potassium Iodide pills in the schools in a quantity sufficient to provide for each student and staff member, in the emergency shelters in a quantity sufficient to provide for the maximum capacity of each shelter, and at a municipal building for distribution to citizens of the Town; or take any action in relation thereto.

## **An Article to Protect Public Health and Safety**

We have fire extinguishers in our homes, life jackets in our boats, and Ipecac in our medicine cabinets for our children. In a similar vein, we should have KI. We hope never to need it; but not to have it would be foolish.

## **Who Supports Stockpiling KI for the Public?**

### **Leading Professional Organizations, including**

- World Health Organization
- American Thyroid Association
- International Agency Atomic Scientists
- National Council on Radiation Protection
- Federation of American Physics
- Physicians for Social Responsibility
- Union of Concerned Scientists

### **Statewide Public Interest Organizations, including**

- Citizens Awareness Network
- C-10 Research and Education Center
- Clean Water Action
- MassPirg
- Massachusetts Citizens for Safe Energy
- Toxics Action Center
- Women's Community Cancer Project

### **Physicians from Leading Teaching Hospitals, including**

- Dr. Richard Clapp, former Director Massachusetts Cancer Registry, John Snow Research and Training Center, B.U. School of Public Health
- Dr. David Rush, Tufts University, Professor Emeritus Pediatrics, President Boston Physicians for Social Responsibility
- Dr. Ted Schettler, Boston Medical Center, Department Internal Medicine, author *Generations at Risk*, 1999
- Dr. Lowell Schnipper, Beth Israel Deaconess, Chief of Oncology

### **Duxbury Committees**

- Duxbury Civil Defense Director
- Duxbury Board of Health
- Duxbury Nuclear Advisory Committee

# Why Stockpile Potassium Iodide (KI)?

## Nuclear Accidents Can Happen, and Radioactive Iodine Will Be Released.

Chernobyl, TMI, and the recent nuclear accident in Tokaimura, Japan illustrate that nuclear accidents can happen even in a technologically advanced society.

The risk of an accident is greater than in the past, due to:

- aging of reactor components;
- economics of deregulation;
- lax oversight by regulators;
- on-site storage of high level nuclear waste at reactor sites;
- increased threat of terrorism with nuclear power plants as potential targets.

## Radioactive Iodine Can Cause Thyroid Cancer, Thyroid Disease and Mental Retardation, Particularly in Children.

Infants and the young are most vulnerable to radioactive iodine. Thyroid cancer in the young is more aggressive - spreading to the lymph and lungs. In pregnant women, Iodine passes the placenta freely.

The effects of a core-melt accident can extend many miles. For example at 10 miles from the plant, 70% of exposed adults and 100% of exposed children are likely to experience thyroid damage. At 25 miles, 40% of exposed adults and 80% of exposed children are likely to be injured.

## KI WORKS

KI provides almost complete thyroid protection if the recommended dose is taken just before or shortly after exposure. Taken within (1) hour after exposure, KI is 85% effective as a blocking agent; taken during the first 3-4 hours after exposure, KI is 50% effective as a blocking agent. But, there is no protection if KI is taken (6) or more hours after exposure.

## KI is Safe and FDA Approved.

- KI is widely used. It is an ingredient in many cough syrups and expectorants. The incidence of adverse reactions to KI in doses used for nuclear accidents is as low as 1 in 10 million - often no more than a skin rash.
- After Chernobyl, Poland distributed about 18 million doses - about 95% of children and 23% of the adults were given one or more doses. Adverse effects were insignificant.
- Only those few people with a known allergy to iodide should consult with a physician before taking KI.

## KI Is Easy To Incorporate In Emergency Plans. It Is Cheap, And It Has a Long Shelf Life.

KI costs less than 10 cents a pill. It can easily be stockpiled in our schools, shelters, and made available for the public to pick up at a centrally located municipal office. It will last indefinitely if kept dry. Replacement is suggested every five to ten years.

## KI Is Stockpiled In Nations Around The World, But Not For The Public In Massachusetts.

In Massachusetts, KI is stockpiled only for emergency workers and institutionalized populations, such as prisoners.

KI is not carried in drugstores. There is not enough profit. You can only get it over the Internet, by mail or telephone.

Even if you have KI in your home, it will not do your children any good if an accident occurs during school hours. Without stockpiling, visitors to town would not be protected either; they would not have known to buy it. Families and teens on Duxbury Beach in the summer should be protected too.

**YES ON 47**

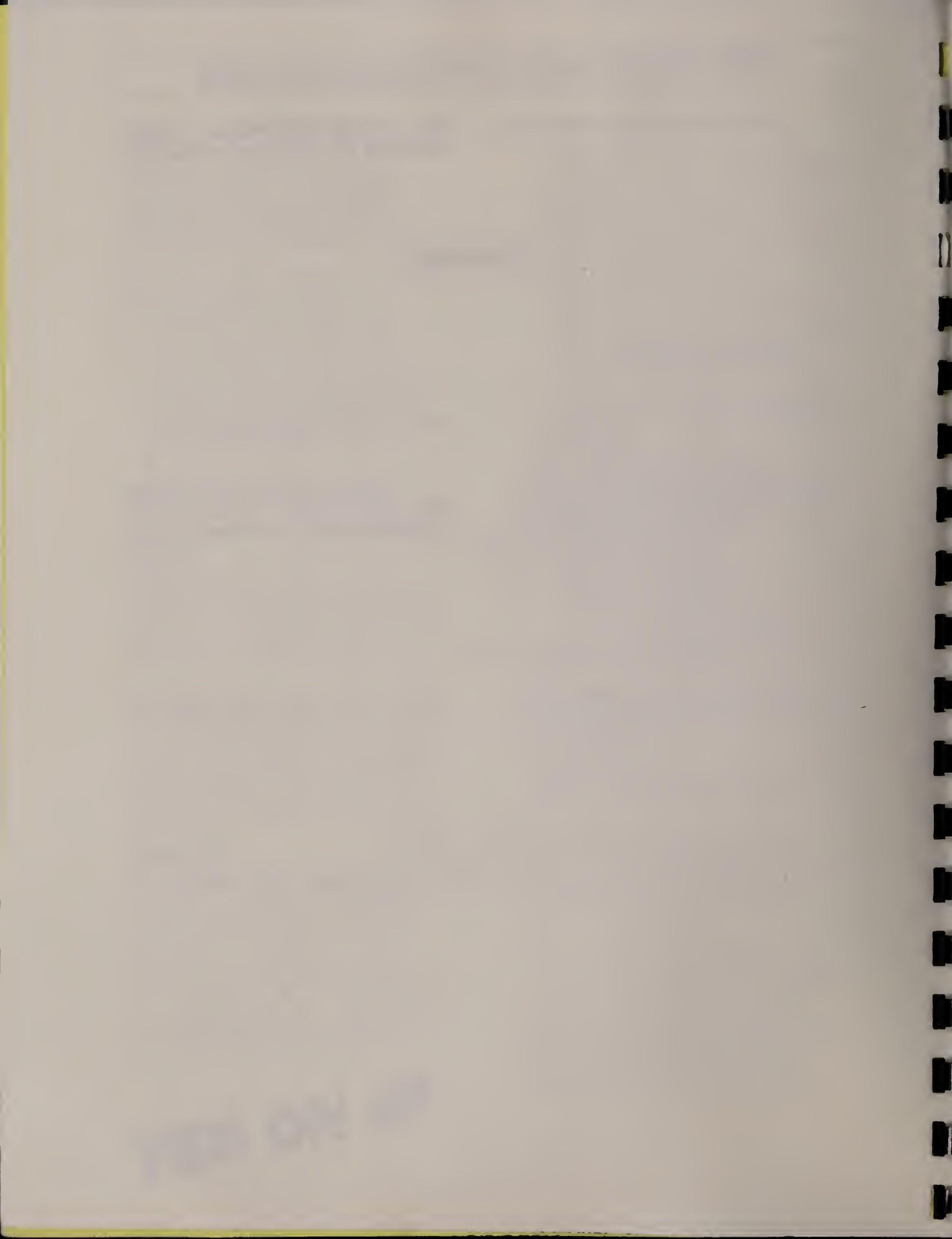
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# Duxbury Nuclear Advisory Committee

January 2000

## DRAFT - EMERGENCY PLANNING ISSUES INCORPORATING POTASSIUM IODIDE FOR THE PUBLIC IN DUXBURY'S EMERGENCY PLANS

The following has been prepared by the *Duxbury Nuclear Advisory Committee* to assist in incorporating in emergency plans making Potassium Iodide (KI) available to the public in the event of a nuclear emergency. As a model, we have relied heavily upon Ohio's Draft Policy. We have also contacted, reviewed and included materials provided by Alabama, Maine, New Hampshire, Tennessee and ANBEX, one of the two U.S. manufacturers of KI.

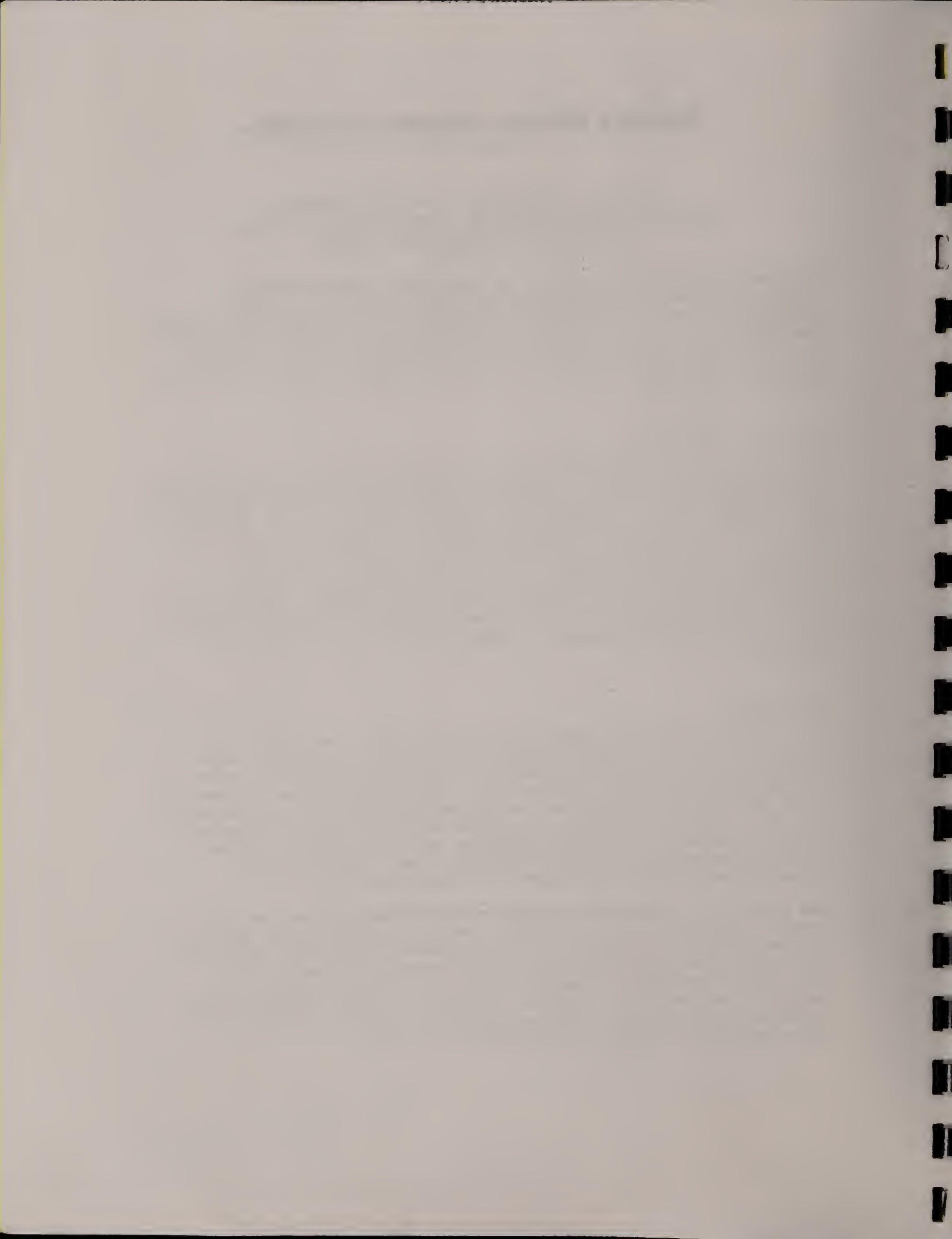
### Warrant Article:

To see if the Town will raise and appropriate, or transfer from available funds, including the Emergency Planning Fund provided to the Town annually from Entergy, a sum of money to obtain and to stockpile Potassium Iodide pills in the schools in a quantity sufficient to provide for each student and staff member, in the emergency shelters in a quantity sufficient to provide for the maximum capacity of each shelter, and at a municipal building for distribution to citizens of the Town; or take any action in relation thereto.

### BACKGROUND

KI is a stable form of iodine that can be an effective prophylactic in reducing the risk of thyroid disease and cancer for those who might inhale or ingest radioactive iodide released in a radioactive plume, in the unlikely event of an accident at a nuclear power plant. If taken in time, the stable iodine blocks the thyroid gland uptake of radioiodine, and thus could help reduce thyroid diseases that might otherwise be caused by exposure. The people mainly at risk to radiation induced thyroid disease are pre-school children, school-aged children (kindergarten through high school), and pregnant women.

The effects of a core-melt accident can extend many miles. The NRC issued a document *Examination Of The Use Of Potassium Iodide (KI) As An Emergency Protective Measure For Nuclear Reactor Accidents* (NUREG/CR-1433, Sandia National Laboratories, Albuquerque, New Mexico, 1980). This report describes the health effects of a nuclear accident at various distances from a reactor. It points out that thyroid growths and other thyroid damage would be expected to occur for hundreds of miles downwind after an accident through breathing.



## EFFECTS OF A CORE-MELT ATMOSPHERIC ACCIDENTS BY DISTANCE

Distance in Miles	Mean Thyroid Dose (REM) for Exposed Adult Outdoors	Probability of Thyroid Damage to Exposed Adult Located Outdoors
1	13,500	60%
5	5,800	70%
10	3,200	70%
25	1,100	40%
50	380	13%
100	100	3%
150	36	1%
200	16	0.5%

For children increase dose and probability of damage by an approximate factor of two.

### KI EFFECTIVENESS

KI has a limited window of effectiveness. The body retains KI for a limited period of time. It does not grant immunity for an extended period of time. KI is only about 95% effective as a blocking agent for radioactive iodine if taken within several hours before during or immediately after inhalation or ingestion. If taken about 4 hours after exposure, the blocking action diminishes to about 50%. After about 6 hours, the blocking action is essentially nil. Thus delays in taking KI will negate the prophylactic benefit of the drug.

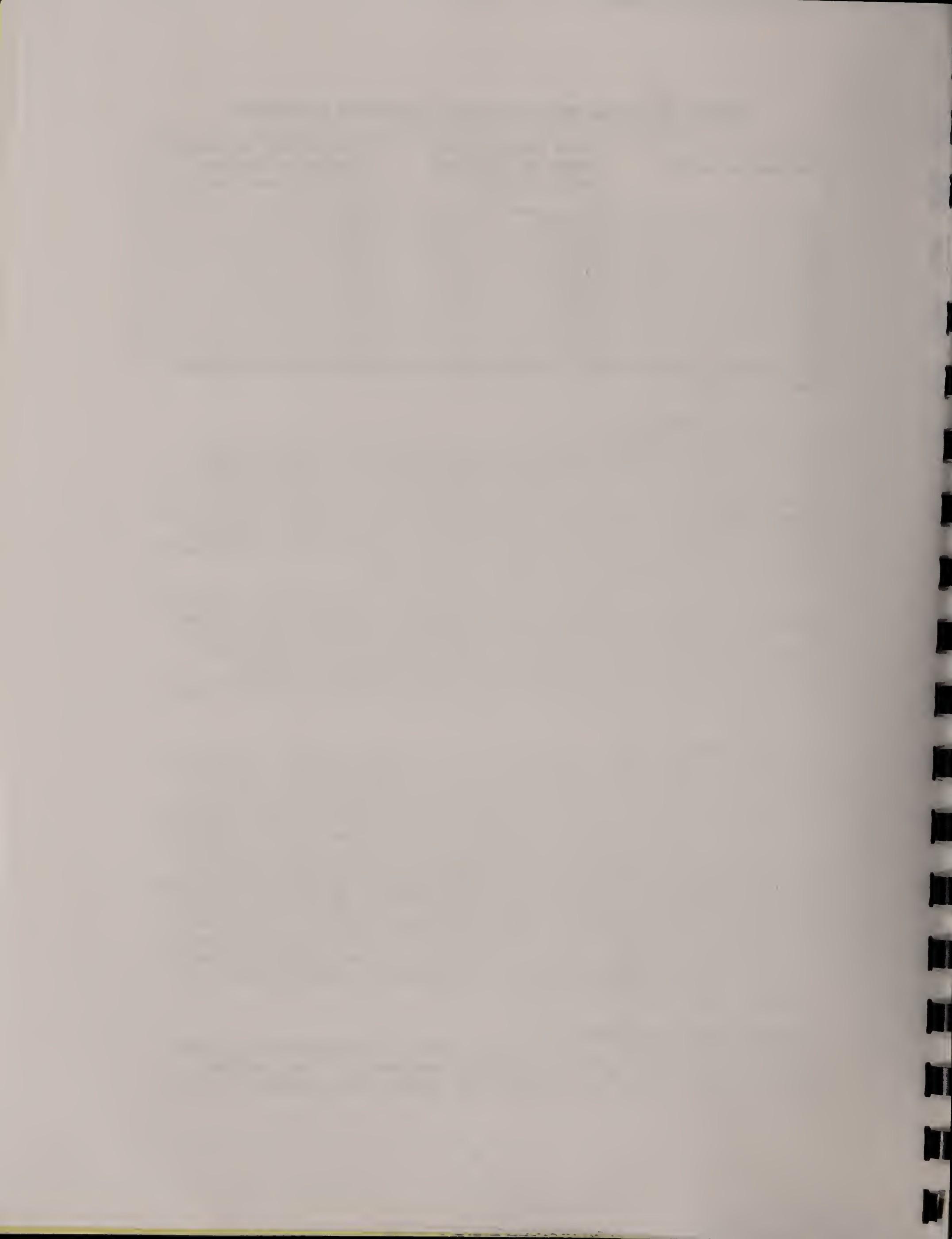
KI is only effective against radioiodines. It is not effective against cesium, strontium, nor other fission products released in an accident. Nor is KI effective against direct gamma radiation from the plume or ground deposition that penetrates to the thyroid. This direct dose, even without inhalation or ingestion, can cause serious health consequences. Therefore, KI is an adjunct to sheltering and evacuation-not a substitute.

### IODIDE SENSITIVITY

KI is FDA approved and a component of many cough medicines. 18 million doses were given out in Poland after the Chernobyl disaster with negligible and transient allergic reactions. However, certain people are sensitive to iodide or have medical conditions such that they risk side effects and allergic reactions to it in varying severity. The Town of Duxbury advises potential recipients of KI that if they, or their minor children, have reactions to iodide or are not sure, they should consult their personal physician, in anticipation of the potential need to take KI should a nuclear accident occur. Side effects are unlikely because of the low dosages and short time that anyone would be taking KI. However, in order to keep the risk for side effects at minimum, the following are contraindications: (1) present or past thyroid diseases; (2) known iodine hypersensitivity; (3) dermatitis herpetiformis; and (4) hypocomplementemic vasculitis.

### PRE-ACCIDENT DISTRIBUTION

Especially parents of pre-school and school aged children and pregnant women are encouraged to obtain advance supplies of KI for personal administration. It can not be bought at drugstores, although it is an



FDA approved over-the-counter medication. This is because there is not enough profit to be made from its sale. However, it can be obtained from commercial sources available over the Internet, by mail or telephone, 1-800 numbers.

The state of New Hampshire's Emergency Calendar lists two companies that supply KI. You may order from them directly, by phone, mail or over the Internet.

Carter Wallace Laboratories	Anbex, Inc
Thyro-Block Tablets	IOSAT Tablets
Order over internet websites:	Order over internet websites:
<a href="http://www.nitro-pak.com">www.nitro-pak.com</a>	<a href="http://www.anbex.com">www.anbex.com</a>
or	
<a href="http://www.major-surplus-survival.com">www.major-surplus-survival.com</a>	
or, by calling	or, by writing
1-800-804-4147	ANBEX, Inc
1-800-801-4148	35246 U.S. 19 N. Suite 284 Palm Harbor, FL 34684-1931

The Town of Duxbury may decide to stockpile KI at a municipal office - such as Town Hall. If this is the case, people who receive KI will be provided with a copy of the package insert provided by the manufacturer and the consent form. The package insert provides written information and instructions on taking KI tablets, including dosage, as well as possible side effects and possible allergic reactions to KI. The consent form, indicating that they have received this information, summarizes the package insert information.

Sample of Information Provided by ANBEX:

In accordance with government regulations, IOSAT (potassium iodide, USP) is to be taken only at the direction of public health officials in the event of a nuclear emergency.

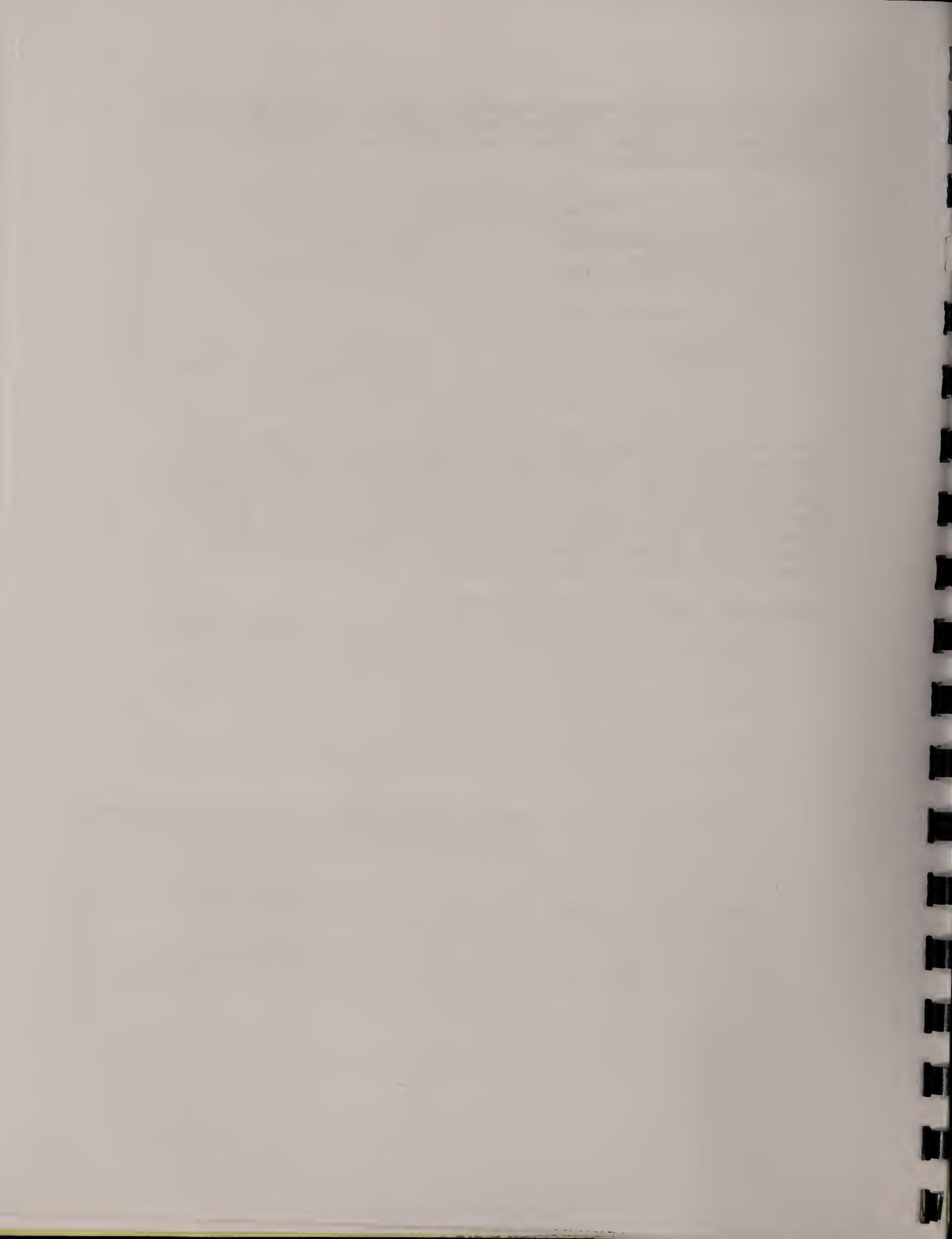
Store IOSAT at room temperature, in a dry environment. Do not open foil blister packets. Please follow all labeling instructions.

If kept dry and unopened, IOSAT can be expected to last for many years.

For additional information about IOSAT, please see the ANBEX web page, or write to us at the above address.

**IOSAT Tablets**

<b>Directions for use:</b> Use only as directed by State or local public health authorities in the event of a radiation emergency	<b>WARNING: POTASSIUM IODIDE SHOULD NOT BE USED BY PEOPLE ALLERGIC TO IODIDE</b>	Store at controlled room temperature between 15 C and 30C (59 and 86 F)  Keep package dry and foil packets intact.
<b>DOSAGE: Adults and Children</b> <b>1 year of Age or Older:</b> One tablet once a day. Crush for small children. <b>Babies Under 1 Year of Age:</b> One-half tablet once a day. Crush first. Take for 10 days unless directed otherwise by State or local health authorities.	Keep out of the reach of children. In case of overdose or allergic reaction, contact a physician or public health authority. Read the accompanying labeling for precautions and side effects.	NDC 51803-001-01  Distributed by: <b>ANBEX, INC</b> 15 West 75 <sup>th</sup> Street New York, New York 10023



IOSAT Tablets package insert:

<p><b>IOSAT Tablets</b> <b>(Potassium Iodide Tablets,</b> <b>U.S.P.)</b> <b>(Abbreviated KI)</b> TAKE POTASSIUM IODIDE ONLY WHEN PUBLIC HEALTH OFFICIALS TELL YOU. IN A RADIATION EMERGENCY, RADIOACTIVE IODINE COULD BE RELEASED INTO THE AIR. POTASSIUM IODIDE (A FORM OF IODINE) CAN HELP PROTECT YOU. IF YOU ARE TOLD TO TAKE THIS MEDICINE, TAKE IT ONE TIME EVERY 24 HOURS. DO NOT TAKE IT MORE OFTEN. MORE WILL NOT HELP YOU AND MAY INCREASE THE RISK OF SIDE EFFECTS. DO NOT TAKE THIS DRUG IF YOU KNOW YOU ARE ALLERGIC TO IODINE (SEE SIDE EFFECTS BELOW).</p>	<p><b>WARNING</b> POTASSIUM IODIDE SHOULD NOT BE USED BY PEOPLE ALLERGIC TO IODIDE. Keep out of the reach of children. In case of overdose or allergic reaction, contact a physician or public health authority.</p>	<p>Of iodine. Larger doses will increase the risk of side effects. You will probably be told not to take the drug for more than 10 days.</p>
<p><b>INDICATIONS</b> THYROID BLOCKING IN A RADIATION EMERGENCY ONLY</p>	<p><b>DESCRIPTION</b> Each IOSAT Tablet contains 130 mg. Of potassium iodide.</p>	<p><b>SIDE EFFECTS</b> Usually side effects of potassium iodide happen when people take higher doses for a long time. You should be careful not to take more than the recommended dose or take it for longer than you are told. Side effects are unlikely because of the low dose and the short time you will be taking the drug.</p>
<p><b>DIRECTIONS FOR USE</b> Use only as directed by State or local public health authorities in the event of a radiation emergency.</p>	<p><b>HOW POTASSIUM IODIDE WORKS</b></p>	<p>Possible side effects include skin rashes, swelling of the salivary glands, and "iodism" (metallic taste, burning mouth and throat, sore teeth and gums, symptoms of a head cold, and sometimes stomach upset and diarrhea).</p>
<p><b>DOSE</b> ADULTS AND CHILDREN ONE YEAR OF AGE OR OLDER: One (1) tablet once a day. Crush for small children. BABIES UNDER ONE YEAR OF AGE: One-half tablet once a day. Crush first.</p>	<p>In a radiation emergency, radioactive iodine may be released in the air. This material may be breathed or swallowed. It may enter the thyroid gland and damage it. The damage would probably not show itself for years. Children are most likely to have thyroid damage.</p>	<p>A few people have an allergic reaction with more serious symptoms. These could be fever and joint pains, or swelling of parts of the face and body and at times severe shortness of breath requiring immediate medical attention.</p>
<p><b>DOSAGE:</b> Take for 10 days unless directed otherwise by State or local public health authorities. Store at controlled room temperature between 15 and 30C (59 to 86F). Keep dry and foil packets intact.</p>	<p>If you take potassium iodide, it will fill up your thyroid gland. This reduces the chance that harmful radioactive will enter the thyroid gland.</p>	<p>Taking iodide may rarely cause overactivity of the thyroid gland, underactivity of the thyroid gland, or enlargement of the thyroid gland (goiter).</p>
	<p><b>WHO SHOULD NOT TAKE POTASSIUM IODIDE</b> The only people who should not take potassium iodide are people who know they are allergic to iodide. You may take potassium iodide even if you are taking medicines for a thyroid problem (for example, a thyroid hormone or antithyroid drug). Pregnant and nursing women and babies and children may also take this drug.</p>	<p><b>WHAT TO DO IF SIDE EFFECTS OCCUR</b> If side effects are severe or if you have an allergic reaction, stop taking potassium iodide. Then, if possible, call a doctor or public health authority for instructions.</p>
	<p><b>HOW AND WHEN TO TAKE POTASSIUM IODIDE</b> Potassium iodide should be taken as soon as possible after public health officials tell you. You should take one dose every 24 hours. More will not help you because the thyroid can "hold" only limited amounts</p>	<p><b>HOW SUPPLIED</b> IOSAT Tablets (Potassium Iodide tablets, U.S.P.): packages of 14 tablets (NDC 51803-001-01): Each white, round, scored tablet 130 mg. Potassium iodide.</p>



Sample Consent Form, Alabama:

**HOW POTASSIUM IODIDE WORKS**

In a radiation emergency radioactive iodine may be released in the air. This material may be breathed or swallowed. It may enter the thyroid gland and damage it.

If you take potassium iodide, it will saturate your thyroid gland with nonradioactive iodine. This reduces the chance that harmful radioactive iodine will be absorbed by the thyroid gland.

**SIDE EFFECTS**

Usually, side effects of potassium iodide happen when people take higher doses for a long time. You should be careful not to take more than the recommended dose or take it longer than you are told. Side effects are unlikely because of the low dose and the short time you will be taking the drug.

Possible side effects include skin rashes, swelling of the salivary glands, and "iodism" (metallic, burning mouth and throat, sore teeth and gums, symptoms of a head cold, and sometimes stomach upset and diarrhea).

Taking iodide may rarely cause overactivity of the thyroid gland, underactivity of the thyroid gland, or enlargement of the thyroid gland (goiter).

**WHAT TO DO IF SIDE EFFECTS OCCUR**

If the side effects are severe or if you have an allergic reaction, stop taking potassium iodide. Then, if possible, call a doctor or public health authority for instructions.

**WHO SHOULD NOT TAKE POTASSIUM IODIDE**

The only people who should not take potassium iodide are people who know they are allergic to iodide. You may take potassium iodide even if you are taking medicines for a thyroid problem (for example, a thyroid hormone or antithyroid drug). Pregnant and nursing women and babies may also take this drug.

**PLEASE KEEP THIS PART OF THE INFORMATION SHEET FOR YOUR RECORDS**

---

I have read the information on this form about Potassium Iodide. I have had a chance to ask questions which were answered to my satisfaction. I believe that I understand the benefits and risks of Potassium Iodide and request that it be given to me or to the person names below for whom I am authorized to make this request.

**INFORMATION ON PERSON TO RECEIVE POTASSIUM IODIDE**

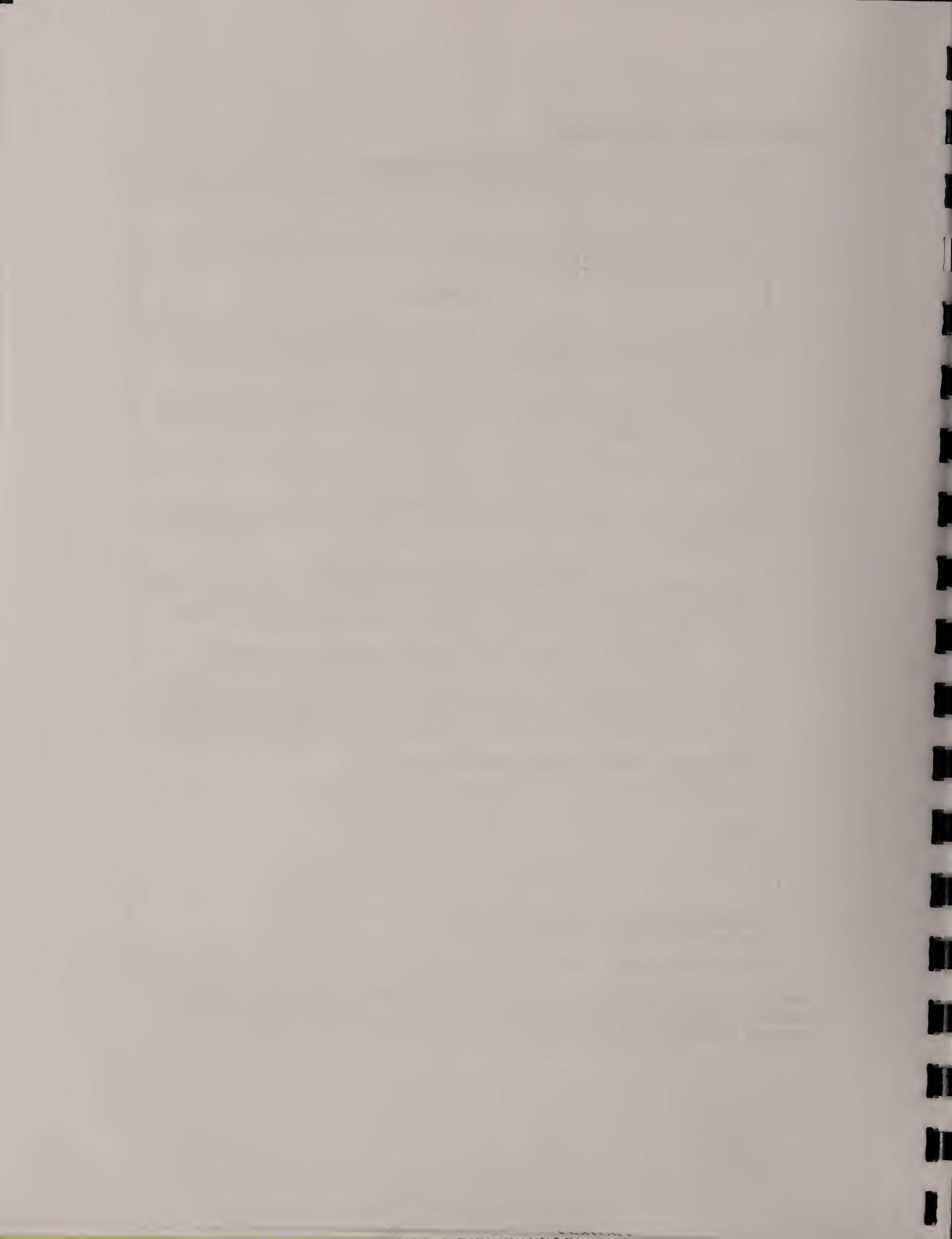
Name (Please print) Birthdate age

Address

Zip

Signature of person to receive iodide or  
person authorized to make the request Date

Note that the side effects listed in the Alabama consent form differ somewhat from those listed in the IOSAT tablet insert. This "may" be because Alabama provides tablets manufactured by Carter Wallace.



## **ACCIDENT DISTRIBUTION**

KI should be pre-positioned in stockpiles in advance of an accident in schools and shelters. After an accident and if the call is to evacuate, town KI stockpiles at the shelters (and those at a municipal building such as the Town Hall, if so voted) will be transferred to the Reception Center and dispensed to Duxbury residents according to the following priority:

1. As a first priority, KI should be given to people showing evidence of contamination.
2. As a second priority KI should be given to pre-school and school-aged children. KI should be given to women declaring themselves pregnant.
3. As a third priority, other adult members of the general public who request KI should be given KI.

Town emergency plans should reflect that if an accident occurs during school hours, parents or guardians of school children and pre-school aged children are nor expected to be present at the time that the KI should be taken, because, for example they are at work. Town emergency plans should also reflect that those parents or guardians who do not want their child or ward to take KI must register their disapproval of KI administration at their child's or ward's school in a form provided by the school. A copy of that form will be placed on record at the school and at the Civil Defense Office. The Civil Defense Office, in turn, will forward a copy to Town Shelters and make available to the Reception Center; otherwise KI will be administered to the child or ward in their absence.

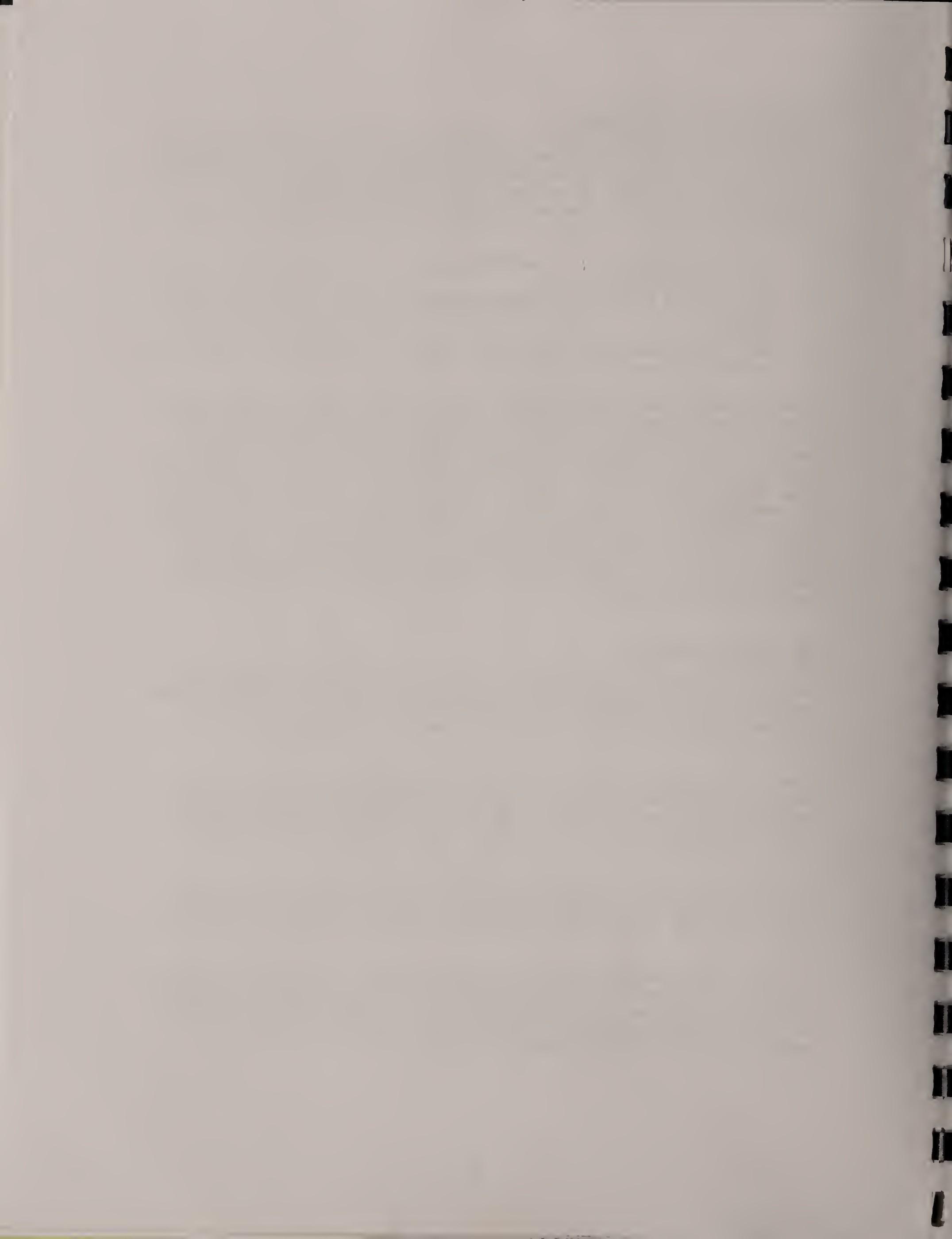
## **KI ADMINISTRATION**

KI is not a prescription drug when used in the recommended doses for radiation emergencies. For the purpose intended, KI can be taken by or administered to anyone who is not sensitive to iodide. Nor for the purpose intended does one have to be a medical professional to administer KI.

When it is projected that a release is imminent or in progress that would expose emergency workers above the allowable dose, current state emergency plans require MDPH to initiate the call to direct emergency workers to take KI. This notification will be used as the trigger to notify the public, too.

The public who have KI in their possession will be told to take their first dose, but not to delay evacuation or seeking shelter in order to locate their KI, if it is not at hand, nor seek to obtain it within the area.

The notification will be used also as the trigger to notify the schools to begin dispensing KI to the students and staff. If the students and staff are already on the evacuation busses en route to the Host School and it has been determined by the MDPH that they were likely to be exposed, KI will be administered on the bus.



If the Emergency Response Call is to shelter, the notification will be used as the trigger to notify the shelters to begin dispensing KI to the public arriving at designated shelters.

If the Emergency Response Call is to evacuate, the notification will be used as the trigger to both move the towns KI stockpiles and to notify the Reception Centers to begin dispensing KI to Duxbury residents arriving at the Reception Center on the priority basis established herein.

#### KI FOR MEMBERS OF THE GENERAL PUBLIC

Members of the public will be advised to take KI via the emergency alert system or other means, as provided for in local emergency plans. This will be arranged in cooperation with MEMA and MDPH.

The operators of schools, shelters, and the Reception Center should adhere to the following prioritization. Once KI is recommended, the facility operator should not delay KI administration to anyone arriving at the facility; except where a parent or guardian is present and declines such administration, or is absent, has pre-registered disapproval for such administration to their child or ward. Parents or guardians accompanying their child or ward will be expected to personally administer KI to their child or ward. Adults can be expected to administer the KI to themselves. Copies of the manufacturers package insert or simply the consent form shall be made available to all those that want to have it.

1. As a first priority, KI should be given to people showing evidence of contamination.
2. As a second priority KI should be given to pre-school and school-aged children. KI should be given to women declaring themselves pregnant.
3. As a third priority, other adult members of the general public who request KI should be given KI.

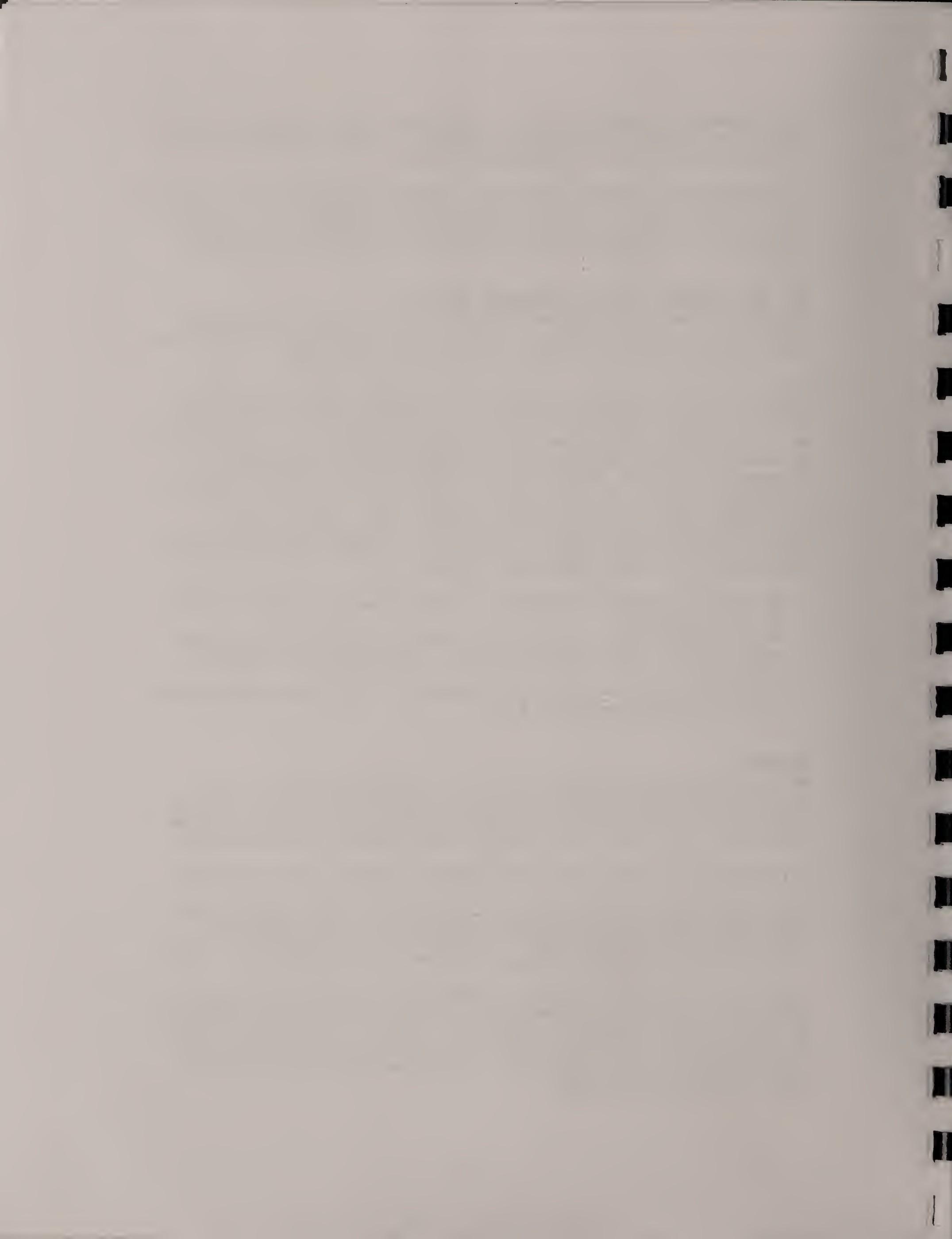
#### DOSAGE

We recommend the pre-distribution of a package of tablets to the general public that chooses to pick up their personal supply if made available at a municipal office, such as Town Hall. It would provide an individual with a ten- day supply as recommended by the manufacturer.

We recommend that the schools and shelters provide a one- day supply.

We recommend that the Reception Center provide a two- day supply. We assume that supply will be limited and that after this period the individual will be either away from exposure and/or additional supplies will be brought in by the federal and state disaster workers.

The tablets come scored to permit subdivision to smaller dosages. The table below provides recommendations on daily dosage in milligrams of KI for the general public, by population group. If this differs from the manufacturers' recommendations, the Board of Health will resolve the discrepancy after consultation with Massachusetts Department of Public Health and the USFDA.



General Public Population Group	Milligram
Dose Neonates (infants from birth to 1 month)	16
Young Children, over 1 month old to 3 years old	32
Children, over 3 years old to 12 years old	65
Adolescents(over 12) to Adults, including Nursing women; and pregnant women all ages	130

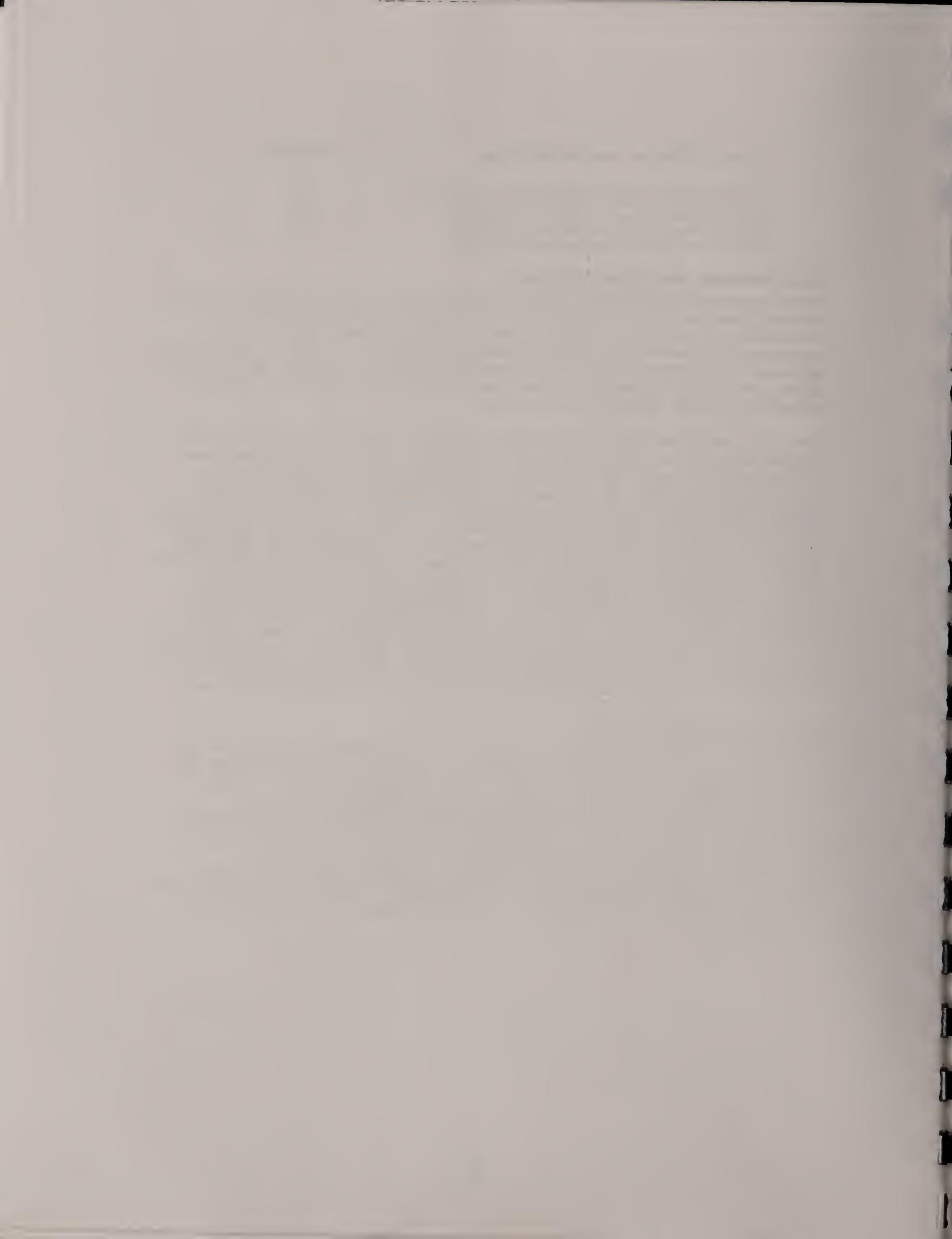
### **PROCUREMENT AND STOCKPILING**

Local emergency plans will need to be revised to include plans for the stockpiling and distribution of KI; and for a planned educational outreach program that acquaints people with the use of KI as a supplement to evacuation and sheltering. The Town will fund the initial purchase and replenishment of KI and the costs of storage, maintenance, distribution and subsequent costs according to the financing method approved by Town Meeting, March 2000.

The local storage of KI and administration of the program will be the responsibility of the local Civil Defense Director. The Duxbury Board of Health will seek the advice of the Massachusetts Department of Public Health (MDPH) to advise the Civil Defense Director on health aspects of effective KI storage, control and distribution; and the safe disposal and replenishment of expired KI supplies. The Duxbury Nuclear Advisory Committee will assist in revising and implementing emergency plans to incorporate stockpiling and predistributing KI for the general public. KI shall be stockpiled for the public in schools, shelters, and made available to the public to voluntarily pick up at a central municipal location. The Town Hall seems appropriate. It is centrally located and the public is used to picking up important items there such as beach stickers, transfer-station stickers, dog tags. KI supplies for the shelters and municipal office stock will be transferred by Civil Defense to the Reception Center in the event of a call to evacuate.

### **POLICY IMPLEMENTATION**

The Town of Duxbury believes that with proper planning, a program of effective stockpiling and distribution of KI can be accomplished. The Town of Duxbury also believes that the substantial weight of local efforts should be placed on planned, public education and pre-distribution of KI; and if public education and pre-distribution is done well, then KI will be available to those who can benefit by it. The Town of Duxbury believes that efforts made on aspects of distribution after an accident should in no major way detract from efforts made by local authorities to implement effective sheltering and evacuation of the population. KI is a supplement to evacuation and sheltering.



## Draft Emergency Plans - Schools

### Rationale:

KI should be stockpiled in the schools. This is the advice of experts such as the World Health Organization and the United States' Federal Drug Administrations' Dr. Temeck, Department of Endocrine and Metabolic disorders. Chernobyl clearly demonstrated that children are the most susceptible to the harmful effects of radioiodine.

Stockpiling in schools is necessary even if citizens have bought their own supply of KI and have it at in their homes. Some parents may have had the foresight to purchase KI; however, the children would be in school and the parents at work or away from town. Children can not bring medication to school each day. Also, parents who had the foresight to purchase KI and were in town may rush to school to bring KI to their children - causing traffic logjams and havoc to emergency plans.

### Population Data

	High School	Magic Dragon	Middle	Alden	Chandler
Students	872	61	1003	468	761
Staff	83	17	83	33	65
Total	955	78	1086	501	826

Total staff and students = (students 3048) 3446

It would be reasonable to obtain sufficient supply for the students and staff in order to provide for the projected school population, until 2010 - the projected expiration date of KI purchased in 2000.

Projected students 2010 = 3680 (mid-level projection from Mass Institute for Social and Economic Research)

### Add KI to School's "Over the Counter Protocol and Medical Permission Form"

KI should be added to the medical permission form sent to parents/guardians by the Duxbury Schools Department on an annual basis. Parents/guardians of students entering mid-term also will be provided with the form.

### Duxbury Public Schools "over the Counter Protocol"

The school nurse in accordance with the Standing Orders of Dr. Leo Muido, School Physician, may administer over the counter medications.

These medications may be administered with parental permission. The permission forms will be sent to parents on an annual basis (in the form of the Medical Information Form).

Documentation for all over the counter medication will be recorded on the Daily Medication Log Sheet.



Alabama's Consent Form could serve as a model or a photocopy of the manufacturer's insert  
Sample Consent Form, Alabama:

**HOW POTASSIUM IODIDE WORKS**

In a radiation emergency radioactive iodine may be released in the air. This material may be breathed or swallowed. It may enter the thyroid gland and damage it.

If you take potassium iodide, it will saturate your thyroid gland with nonradioactive iodine. This reduces the chance that harmful radioactive iodine will be absorbed by the thyroid gland.

**SIDE EFFECTS**

Usually, side effects of potassium iodide happen when people take higher doses for a long time. You should be careful not to take more than the recommended dose or take it longer than you are told. Side effects are unlikely because of the low dose and the short time you will be taking the drug.

Possible side effects include skin rashes, swelling of the salivary glands, and "iodism" (metallic, burning mouth and throat, sore teeth and gums, symptoms of a head cold, and sometimes stomach upset and diarrhea).

Taking iodide may rarely cause overactivity of the thyroid gland, underactivity of the thyroid gland, or enlargement of the thyroid gland (goiter).

**WHAT TO DO IF SIDE EFFECTS OCCUR**

If the side effects are severe or if you have an allergic reaction, stop taking potassium iodide. Then, if possible, call a doctor or public health authority for instructions.

**WHO SHOULD NOT TAKE POTASSIUM IODIDE**

The only people who should not take potassium iodide are people who know they are allergic to iodide. You may take potassium iodide even if you are taking medicines for a thyroid problem (for example, a thyroid hormone or antithyroid drug). Pregnant and nursing women and babies may also take this drug.

**PLEASE KEEP THIS PART OF THE INFORMATION SHEET FOR YOUR RECORDS**

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I have read the information on this form about Potassium Iodide. I have had a chance to ask questions which were answered to my satisfaction. I believe that I understand the benefits and risks of Potassium Iodide and request that it be given to me or to the person names below for which I am authorized to make this request.

**INFORMATION ON PERSON TO RECEIVE POTASSIUM IODIDE**

Name (Please print) Birthdate age

Address

Zip

Signature of person to receive iodide or Date  
person authorized to make the request



IOSAT Tablets package insert:

<p><b>IOSAT Tablets</b> <b>(Potassium Iodide Tablets, U.S.P.)</b> <b>(Abbreviated KI)</b> TAKE POTASSIUM IODIDE ONLY WHEN PUBLIC HEALTH OFFICIALS TELL YOU. IN A RADIATION EMERGENCY, RADIOACTIVE IODINE COULD BE RELEASED INTO THE AIR. POTASSIUM IODIDE (A FORM OF IODINE) CAN HELP PROTECT YOU. IF YOU ARE TOLD TO TAKE THIS MEDICINE, TAKE IT ONE TIME EVERY 24 HOURS. DO NOT TAKE IT MORE OFTEN. MORE WILL NOT HELP YOU AND MAY INCREASE THE RISK OF SIDE EFFECTS. DO NOT TAKE THIS DRUG IF YOU KNOW YOU ARE ALLERGIC TO IODINE (SEE SIDE EFFECTS BELOW).</p>	<p><b>WARNING</b> PEOPLE ALLERGIC TO IODIDE SHOULD NOT USE POTASSIUM IODIDE. Keep out of the reach of children. In case of overdose or allergic reaction, contact a physician or public health authority.</p> <p><b>DESCRIPTION</b> Each IOSAT Tablet contains 130 mg. Of potassium iodide.</p> <p><b>HOW POTASSIUM IODIDE WORKS</b> Certain forms of iodide help your thyroid gland work right. Most people get the iodine they need from foods like iodized salt or fish. The thyroid can "store" or hold a certain amount of iodine.</p> <p>In a radiation emergency, radioactive iodine may be released in the air. This material may be breathed or swallowed. It may enter the thyroid gland and damage it. The damage would probably not show itself for years. Children are most likely to have thyroid damage.</p> <p>If you take potassium iodide, it will fill up your thyroid gland. This reduces the chance that harmful radioactive will enter the thyroid gland.</p> <p><b>WHO SHOULD NOT TAKE POTASSIUM IODIDE</b></p> <p>The only people who should not take potassium iodide are people who know they are allergic to iodide. You may take potassium iodide even if you are taking medicines for a thyroid problem (for example, a thyroid hormone or antithyroid drug). Pregnant and nursing women and babies and children may also take this drug.</p> <p><b>HOW AND WHEN TO TAKE POTASSIUM IODIDE</b> Potassium iodide should be taken as soon as possible after public health officials tell you. You should take one dose every 24 hours. More will not help you because the thyroid can "hold" only limited amounts</p>	<p>Of iodine. Larger doses will increase the risk of side effects. You will probably be told not to take the drug for more than 10 days.</p> <p><b>SIDE EFFECTS</b> Usually side effects of potassium iodide happen when people take higher doses for a long time. You should be careful not to take more than the recommended dose or take it for longer than you are told. Side effects are unlikely because of the low dose and the short time you will be taking the drug.</p> <p>Possible side effects include skin rashes, swelling of the salivary glands, and "iodism" (metallic taste, burning mouth and throat, sore teeth and gums, symptoms of a head cold, and sometimes stomach upset and diarrhea).</p> <p>A few people have an allergic reaction with more serious symptoms. These could be fever and joint pains, or swelling of parts of the face and body and at times severe shortness of breath requiring immediate medical attention.</p> <p>Taking iodide may rarely cause overactivity of the thyroid gland, underactivity of the thyroid gland, or enlargement of the thyroid gland (goiter).</p> <p><b>WHAT TO DO IF SIDE EFFECTS OCCUR</b> If side effects are severe or if you have an allergic reaction, stop taking potassium iodide. Then, if possible, call a doctor or public health authority for instructions.</p> <p><b>HOW SUPPLIED</b> IOSAT Tablets (Potassium Iodide tablets, U.S.P.): packages of 14 tablets (NDC 51803-001-01): Each white, round, scored tablet 130 mg. Potassium iodide.</p> <p>Distributed by <b>ANBEX, INC.</b> 15 W 75<sup>th</sup> St., New York, N.Y. 10023</p>
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## **Accident Distribution**

If an accident occurs during school hours, parents or guardians of school children and pre-school aged children are nor expected to be present at the time that the KI should be taken, because, for example they are at work.

A parent or guardian's consent will be obtained beforehand by signing the medical permission form, in order to allow emergency workers or school officials to administer the KI.

Those parents or guardians who do not want their child or ward to take KI must register their disapproval of KI administration at their child's or ward's school in the medical form provided by the school. A copy of that form will be placed on record at the school and at the Civil Defense Office. The Civil Defense Office, in turn, will forward a copy to Town Shelters and make available to the Reception Center; otherwise KI will be administered to the child or ward in their absence.

## **KI Administration**

### Timing - when administered:

KI will be administered to the school population after the Massachusetts Department of Public Health notifies the Duxbury Civil Defense Director that emergency workers are directed to take KI.

### Administered by school staff:

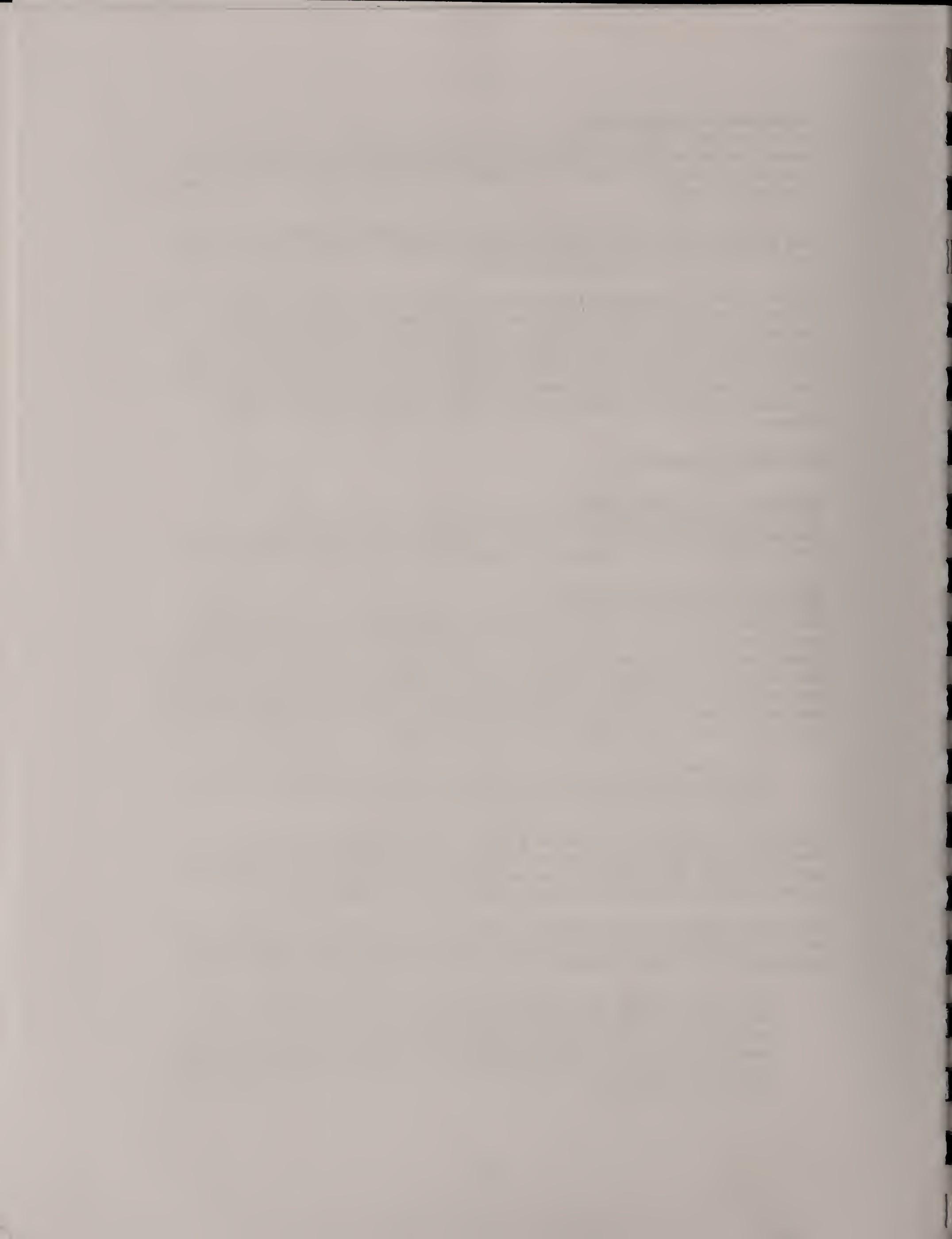
The Civil Defense Director and School Department will decide whether the nurse and/or the school staff shall administer KI. It should be noted that KI is not a prescription drug when used in the recommended doses for radiation emergencies. For the purpose intended, one should not have to be a medical professional to administer KI. This is stated, for example, in the *Ohio Department of Public Health Draft KI Protocol* and in the NRC's Potassium Iodide Core Group Transcript, March 1999 by the U.S.F.D.A. representative, Dr. Jean Temeck.

In an emergency you want to get it to the children as quickly as possible and the teacher is right there on the spot...You do not need to be medically trained to give KI.

Further, it should be recognized that it may be appropriate to administer KI on the evacuation busses. Consideration then should be given to both the number of nurses that will be available to ride the busses and the necessity to administer KI in a timely manner.

Who will administer KI should be made clear in both the Emergency Plans and in the *Duxbury School Over The Counter Protocol* by inserting, if appropriate, a second sentence in the first paragraph of the protocol,

The school nurse in accordance with the Standing Orders of Dr. Leo Muido, School Physician, may administer over the counter medications. In the case of administering potassium iodide (KI) tablets during the unlikely event of a nuclear emergency, either the school nurse or members of the school's staff may administer KI to the students.



Procedure:

1. Massachusetts State Department of Public Health initiates response for emergency workers to take KI - either directly to Duxbury Civil Defense or via Massachusetts Emergency Management Agency.
2. Duxbury Civil Defense Director notifies School Superintendent.
3. Superintendent/Designee notifies staff.
4. The appropriate response action will depend upon the accident classification (site area emergency, general emergency) and response directions (shelter, evacuate) from the State.
5. In a nuclear emergency, the students should be directed to their homeroom. This is necessary to take attendance, provide accountability, and to preserve order. Each homeroom will have a KI Kit. The Kit will include KI Tablets in sufficient number for that homeroom. Also, it will include a KI Administration Form, listing the names of the students and staff in that homeroom. It shall clearly indicate those that can NOT be given KI.

**Sample KI Administration Form**

School  
Homeroom Number

Staff Member:

Name \_\_\_\_\_ Signature \_\_\_\_\_

Student/Staff                    Received KI

Names	Date	Time	Location
Mary Jones	4/7/2000	11:15 AM	H.S. Homeroom
Jim Smith	DO NOT ADMINISTER KI		

*Directions to School Nurse: write in bold letters "DO NOT Administer KI" beside name before dispensing KI Kit (tablets and this form) to Homeroom; and for a late matriculating student, add name and directions to this form.*

6. KI will be administered in the classroom by the nurse or homeroom teacher, if MDPH has called for KI. The homeroom staff member will then fill out the KI Administration Form.
7. If MDPH has not called for KI, the staff member in charge of each homeroom shall take the KI supply for that homeroom to either the shelter or evacuation bus.
8. Shelter: If MDPH calls for KI while the students are in the shelter, the homeroom teacher will administer KI to her charges and fill out the KI Administration Form.



9. Evacuation busses: The homeroom teacher shall accompany the students to the bus. If the teacher is not riding on the bus, the KI Kit will be given to the staff member in charge of the bus.
10. Bus: If the call is to administer KI while on the bus en route to Braintree, the staff member on the bus will do so and fill out the KI Administration Form. If the homeroom teacher or nurse is riding on the bus, the teacher or nurse will perform the task.
11. Host School: The Duxbury staff member will stay with those Duxbury students that rode on the evacuation bus to preserve accountability. When the students are registered at the Braintree EOC, the KI Kit will be given to the EOC Representative at the Braintree Reception Center/Host School. If the call is to administer KI, the EOC representative will perform the task and fill out the KI Administration Forms with the assistance of the Duxbury School Nurse/Health Aide.
12. Copies of all KI Administration Forms are to be returned to the Duxbury Civil Defense Department for a permanent record.

#### **Dosage**

One dose will be administered to students and staff unless the parent or legal guardian has signed a form indicating that KI should not be administered. One dose provides protection for 24 hours.

The tablets come scored to permit subdivision to smaller dosages. The table below provides recommendations on daily dosage in milligrams of KI for the general public, by population group. If this differs from the manufacturers' recommendations, the Board of Health will resolve the discrepancy after consultation with Massachusetts Department of Public Health and the USFDA.

<u>General Public Population Group</u>	<u>Milligram</u>
Dose Neonates (infants from birth to 1 month)	16
Young Children, over 1 month old to 3 years old	32
Children, over 3 years old to 12 years old	65
Adolescents(over 12) to Adults, including Nursing women; and pregnant women all ages	130

#### **Equipment**

- KI Addition to School Over the Counter Protocol and Medical Permission Form
- Consent Form
- Manufacturers Insert
- KI Kit  
Tablets
- KI Administration Forms



## Draft Private Schools - Day Cares, Preschools, Nurseries

### Rationale

KI should be provided to children, the most vulnerable population. The issue for the Town of Duxbury is to decide whether to pay for KI for the independent school population if the school so requests. The Duxbury Nuclear Advisory Committee feels that the Town should assume that responsibility.

### Population Data

Total number of students is 1269. 600 are in school and 669 in camp during the summer.

Total number of staff is 274. 143 are in school and 131 in camp during the summer.

Total number of students/staff, school year and summer is 1543

### Protocol

The Civil Defense Director would inform the independent schools about KI, its proper use and availability. If the independent school director or designee chose to stockpile KI for their students and staff, they would sign an agreement with the Town assuming all responsibility for their KI program. However, the Civil Defense Director would include the school on the list of schools to notify once receiving the directive from the State.



## Draft - Shelters

### Rationale

KI should be stockpiled in Town shelters. The public may arrive at the shelter already exposed to radioiodine. The shelter may have a defective ventilation system. The shelter staff may not properly adhere to ventilation instructions. The shelter may not provide adequate shielding - 100% shielding is not likely. Even if some citizens purchase KI, it is unlikely that tourists or daily beach-goers would have known to do so. Duxbury is popular with out-of-towners in the summer. Transients should be protected. Finally if the call is to shelter, the public should respond quickly - not delay in an effort to get KI.

### Population Data

The nine Duxbury Shelters have a total capacity of 23,220.

### Equipment

KI Kit:

- KI tablets sufficient to cover shelters' capacity
- KI Log, Administration Form - provides one carbon copy.

#### Sample KI Log, Administration Form

Shelter \_\_\_\_\_

KI Shelter Staff Members:

\_\_\_\_\_Name \_\_\_\_\_Signature

\_\_\_\_\_Name \_\_\_\_\_Signature

Citizens who received KI

Names \_\_\_\_\_ Address \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

- Consent forms sufficient to cover shelters' capacity
- Photocopies manufacturers' insert sufficient to cover shelters' capacity
- Blow up of Consent Form
- Blow up of manufacturers' insert
- Blow up of sign "Please form (2) lines - children, parent or guardian, and pregnant women in one line - adults in second line"
- Tape to affix blow-ups to wall
- Sign indicating "KI Administration Desk, Please Form a Line"

### Consent Form

The public must be informed about KI, prior to administration. We recommend posting a blow-up of the consent form and package insert. These should be placed over the table where KI will be administered.

There should be two stacks of materials on the table -(1) copies of the manufacturer's package insert and (2) copies of the consent form. A



staff member should hand out these materials to those in line to speed administration.

The public must sign a consent form before receiving KI.

Alabama's Consent Form could serve as a model and/or a photocopy of the manufacturer's insert

Sample Consent Form, Alabama:

**HOW POTASSIUM IODIDE WORKS**

In a radiation emergency radioactive iodine may be released in the air. This material may be breathed or swallowed. It may enter the thyroid gland and damage it.

If you take potassium iodide, it will saturate your thyroid gland with nonradioactive iodine. This reduces the chance that harmful radioactive iodine will be absorbed by the thyroid gland.

**SIDE EFFECTS**

Usually, side effects of potassium iodide happen when people take higher doses for a long time. You should be careful not to take more than the recommended dose or take it longer than you are told. Side effects are unlikely because of the low dose and the short time you will be taking the drug.

Possible side effects include skin rashes, swelling of the salivary glands, and "iodism" (metallic, burning mouth and throat, sore teeth and gums, symptoms of a head cold, and sometimes stomach upset and diarrhea).

Taking iodide may rarely cause overactivity of the thyroid gland, underactivity of the thyroid gland, or enlargement of the thyroid gland (goiter).

**WHAT TO DO IF SIDE EFFECTS OCCUR**

If the side effects are severe or if you have an allergic reaction, stop taking potassium iodide. Then, if possible, call a doctor or public health authority for instructions.

**WHO SHOULD NOT TAKE POTASSIUM IODIDE**

The only people who should not take potassium iodide are people who know they are allergic to iodide. You may take potassium iodide even if you are taking medicines for a thyroid problem (for example, a thyroid hormone or antithyroid drug). Pregnant and nursing women and babies may also take this drug.

**PLEASE KEEP THIS PART OF THE INFORMATION SHEET FOR YOUR RECORDS**

I have read the information on this form about Potassium Iodide. I have had a chance to ask questions which were answered to my satisfaction. I believe that I understand the benefits and risks of Potassium Iodide and request that it be given to me or to the person named below for which I am authorized to make this request.

**INFORMATION ON PERSON TO RECEIVE POTASSIUM IODIDE**

Name (Please print) Birthdate age

Address

Zip

Signature of person to receive iodide or  
person authorized to make the request Date



## IOSAT Tablets package insert:

<p><b>IOSAT Tablets</b> <b>(Potassium Iodide Tablets, U.S.P.)</b> <b>(Abbreviated KI)</b> TAKE POTASSIUM IODIDE ONLY WHEN PUBLIC HEALTH OFFICIALS TELL YOU. IN A RADIATION EMERGENCY, RADIOACTIVE IODINE COULD BE RELEASED INTO THE AIR. POTASSIUM IODIDE (A FORM OF IODINE) CAN HELP PROTECT YOU. IF YOU ARE TOLD TO TAKE THIS MEDICINE, TAKE IT ONE TIME EVERY 24 HOURS. DO NOT TAKE IT MORE OFTEN. MORE WILL NOT HELP YOU AND MAY INCREASE THE RISK OF SIDE EFFECTS. DO NOT TAKE THIS DRUG IF YOU KNOW YOU ARE ALLERGIC TO IODINE (SEE SIDE EFFECTS BELOW).</p>	<p><b>WARNING</b> PEOPLE ALLERGIC TO IODIDE SHOULD NOT USE POTASSIUM IODIDE. Keep out of the reach of children. In case of overdose or allergic reaction, contact a physician or public health authority.</p>	Of iodine. Larger doses will increase the risk of side effects. You will probably be told not to take the drug for more than 10 days.
<p><b>INDICATIONS</b> THYROID BLOCKING IN A RADIATION EMERGENCY ONLY</p>	<p><b>DESCRIPTION</b> Each IOSAT Tablet contains 130 mg. Of potassium iodide.</p>	<p><b>SIDE EFFECTS</b> Usually side effects of potassium iodide happen when people take higher doses for a long time. You should be careful not to take more than the recommended dose or take it for longer than you are told. Side effects are unlikely because of the low dose and the short time you will be taking the drug.</p>
<p><b>DIRECTIONS FOR USE</b> Use only as directed by State or local public health authorities in the event of a radiation emergency.</p>	<p><b>HOW POTASSIUM IODIDE WORKS</b> Certain forms of iodide help your thyroid gland work right. Most people get the iodine they need from foods like iodized salt or fish. The thyroid can "store" or hold a certain amount of iodine.</p>	<p>Possible side effects include skin rashes, swelling of the salivary glands, and "iodism" (metallic taste, burning mouth and throat, sore teeth and gums, symptoms of a head cold, and sometimes stomach upset and diarrhea).</p>
<p><b>DOSE</b> ADULTS AND CHILDREN ONE YEAR OF AGE OR OLDER: One (1) tablet once a day. Crush for small children. BABIES UNDER ONE YEAR OF AGE: One-half tablet once a day. Crush first.</p>	<p>In a radiation emergency, radioactive iodine may be released in the air. This material may be breathed or swallowed. It may enter the thyroid gland and damage it. The damage would probably not show itself for years. Children are most likely to have thyroid damage.</p>	<p>A few people have an allergic reaction with more serious symptoms. These could be fever and joint pains, or swelling of parts of the face and body and at times severe shortness of breath requiring immediate medical attention.</p>
<p><b>DOSAGE:</b> Take for 10 days unless directed otherwise by State or local public health authorities. Store at controlled room temperature between 15 and 30C (59 to 86F). Keep dry and foil packets intact.</p>	<p>If you take potassium iodide, it will fill up your thyroid gland. This reduces the chance that harmful radioactive will enter the thyroid gland.</p>	<p>Taking iodide may rarely cause overactivity of the thyroid gland, underactivity of the thyroid gland, or enlargement of the thyroid gland (goiter).</p>
	<p><b>WHO SHOULD NOT TAKE POTASSIUM IODIDE</b> The only people who should not take potassium iodide are people who know they are allergic to iodide. You may take potassium iodide even if you are taking medicines for a thyroid problem (for example, a thyroid hormone or antithyroid drug). Pregnant and nursing women and babies and children may also take this drug.</p>	<p><b>WHAT TO DO IF SIDE EFFECTS OCCUR</b> If side effects are severe or if you have an allergic reaction, stop taking potassium iodide. Then, if possible, call a doctor or public health authority for instructions.</p>
	<p><b>HOW AND WHEN TO TAKE POTASSIUM IODIDE</b> Potassium iodide should be taken as soon as possible after public health officials tell you. You should take one dose every 24 hours. More will not help you because the thyroid can "hold" only limited amounts</p>	<p><b>HOW SUPPLIED</b> IOSAT Tablets (Potassium Iodide tablets, U.S.P.): packages of 14 tablets (NDC 51803-001-01): Each white, round, scored tablet 130 mg. Potassium iodide.</p>



## **Accident Distribution**

KI will be dispensed according to the following priority:

1. As a first priority, KI should be given to pre-school and school-aged children. KI should be given to women declaring themselves pregnant.
2. As a second priority, other adult members of the general public who request KI should be given KI.

Parents or guardians accompanying their child or ward will be expected to personally administer KI to their child or ward. Adults can be expected to administer the KI to them selves. We recognize that children and young adults may arrive at the shelter not accompanied by a parent or guardian. A parent or guardian does not have to register their consent beforehand with shelter staff, in order to allow emergency workers to administer KI.

Those parents or guardians who do not want their child or ward to take KI must register their disapproval of KI administration at either their child's or ward's school in the medical form provided by the school or with the Civil Defense Director. A copy of that form will be placed on record at the school and at the Civil Defense Office. The Civil Defense Office, in turn, will forward a copy of the names to Town Shelters to be affixed to Shelter KI Kits. Otherwise, with the young persons cooperation KI will be administered to the child or ward in their absence.

## **KI Administration**

### Timing - when administered:

KI will be administered to the shelter population after the Massachusetts Department of Public Health notifies the Duxbury Civil Defense Director that emergency workers are directed to take KI.

### Administered by shelter staff:

KI is not a prescription drug when used in the recommended doses for radiation emergencies. For the purpose intended, one does not have to be a medical professional to administer KI. The Shelter Officer will direct the Shelter Managers to assign Shelter Staff Members to administer the KI Program.

### Procedure:

#### Set-up:

- Shelter Officer notifies Shelter Managers to prepare shelters.
- Shelter Managers assign preparatory tasks to Shelter staff - set up KI table, post KI notices (3), place consent forms and photocopies of package inserts on table, place KI Shelter Kit (box of tablets, form indicating who should NOT receive KI) under table for administrator.

#### Notification:

- (1) Massachusetts State Department of Public Health initiates response for emergency workers to take KI - either directly to Duxbury Civil Defense or via Massachusetts Emergency Management Agency.



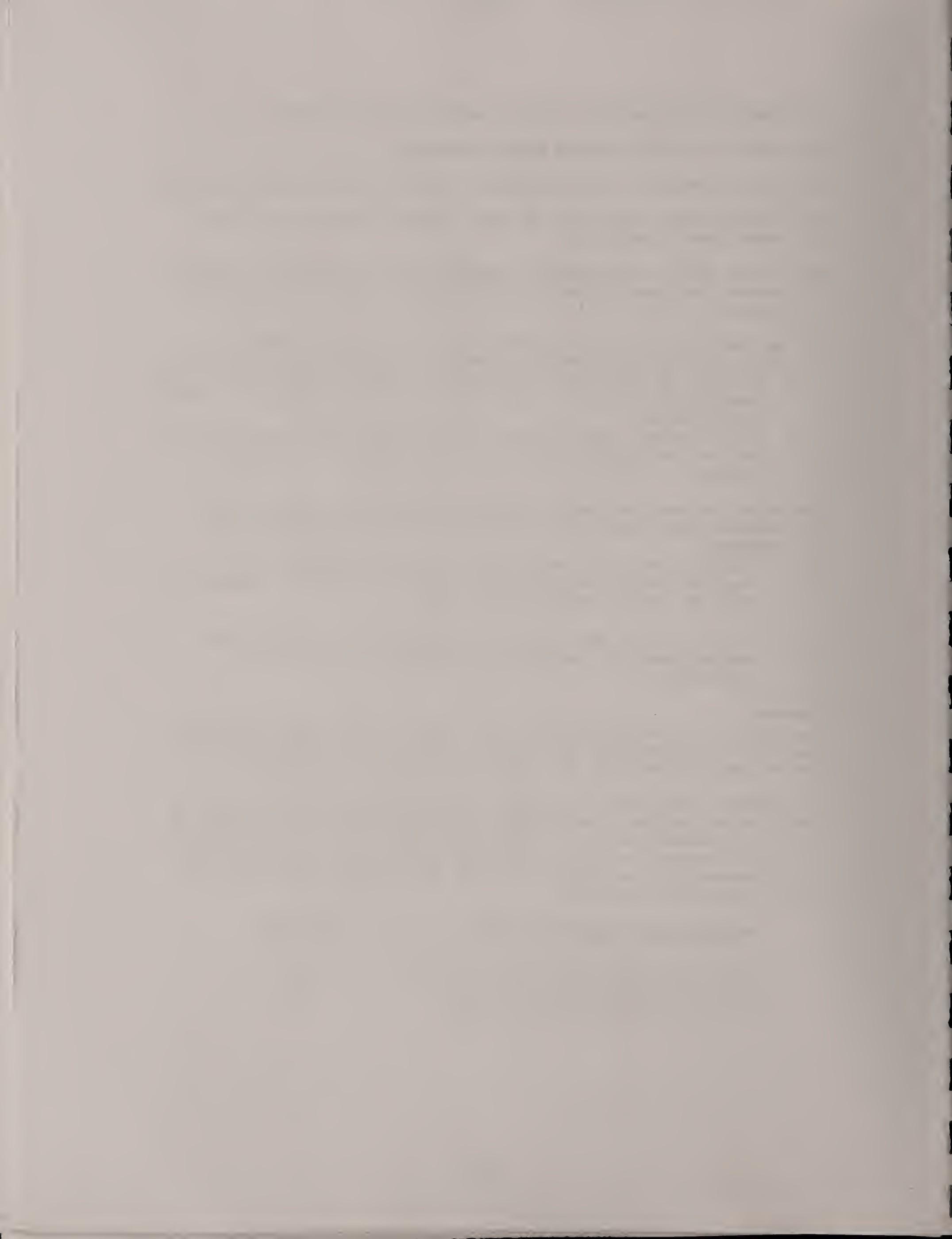
- (2) Duxbury Civil Defense Director notifies Shelter Officer
- (3) Shelter Officer notifies Shelter Managers
- (4) Shelter Managers' notifies Shelter Staff to begin administration KI
- (5) Shelter Staff member sits at desk, obtains signature on Consent Form, then dispenses KI.
- (6) Second Shelter Staff member organizes line and hands out copies of consent form and package insert to those in line to speed up the process.
- (7) At the termination of the Sheltering Advisory, shelterees are advised to go to the Reception Center in Braintree for monitoring.
  - One copy of the KI Log indicating the names of those receiving KI should go to Braintree. This task should be assigned to a Shelter Staff member.
  - All KI consent forms and the carbon copy of the KI Log should be sent to the Duxbury Civil Defense Department for a permanent record.
- (8) Note that when the call to shelter occurs when school is in session, the school population and general population are kept separate.
  - In the case of the Duxbury Public School population, the homeroom teacher or nurse will administer KI to her charges and fill out the KI Administration Form.
  - In the case of the Duxbury Independent Schools, the school administrator or designee will perform the KI task, as applicable.

#### **Dosage**

One dose will be administered to each member of the public unless the parent or legal guardian has signed a form indicating that KI should not be administered. One dose provides protection for 24 hours.

The tablets come scored to permit subdivision to smaller dosages. The table below provides recommendations on daily dosage in milligrams of KI for the general public, by population group. If this differs from the manufacturers' recommendations, the Board of Health will resolve the discrepancy after consultation with Massachusetts Department of Public Health and the USFDA.

<u>General Public Population Group</u>	<u>Milligram</u>
Dose Neonates (infants from birth to 1 month)	16
Young Children, over 1 month old to 3 years old	32
Children, over 3 years old to 12 years old	65
Adolescents (over 12) to Adults, including Nursing women; and pregnant women all ages	130



## Draft - Stockpile at Municipal Building for Public To Voluntarily Pick-Up/Purchase

### Rationale

Although KI is a FDA approved over-the-counter drug, it is not available in drug stores. We are told that this is due to economics, the profit margin is minimal. A local stockpile at a municipal building would increase distribution. Availability must be coupled with public education to encourage the public to obtain KI and educate them about its benefits and proper use. The Duxbury Board of Health and the Duxbury Nuclear Advisory Committee will assist the Duxbury Civil Defense Director in this task.

### Population Data

Duxbury's current population is approximately 15,000, with approximately 5,163 households.

### PRE-ACCIDENT DISTRIBUTION

Especially parents of pre-school and school aged children and pregnant women are encouraged to obtain advance supplies of KI for personal administration from a designated municipal office or from commercial sources available over the internet, by mail or telephone, 1-800 numbers.

Notice should be placed both in the Emergency Calendar and periodically in local papers.

### By Internet, Mail, Telephone:

A similar notice to New Hampshire's', below, should be inserted in our Emergency Calendar and periodically appear in local papers.

The state of New Hampshire's Emergency Calendar lists two companies that supply KI. You may order from them directly, by phone, mail or over the Internet.

<b>Carter Wallace Laboratories</b>
Thyro-Block Tablets
Order over internet websites:
<a href="http://www.nitro-pak.com">www.nitro-pak.com</a>
or
<a href="http://www.majorplussurvival.com">www.majorplussurvival.com</a>

or, by calling  
1-800-804-4147  
1-800-801-4148

<b>Anbex, Inc</b>
IOSAT Tablets
Order over internet websites:
<a href="http://www.anbex.com">www.anbex.com</a>

or, by writing  
ANBEX, Inc  
35246 U.S. 19 N. Suite 284 Palm  
Harbor, FL 34684-1931



## Stockpile at a Municipal Office, Town Hall:

### Equipment:

KI stockpile  
Manufacturers' insert  
Consent Form  
Payment record sheet, if public is to pay

### Protocol

People who receive KI will be provided with a copy of the package insert provided by the manufacturer and the consent form. The package insert provides written information and instructions on taking KI tablets, including dosage, as well as possible side effects and possible allergic reactions to KI. The consent form, indicating that they have received this information, summarizes the package insert information.

### Sample of Information Provided by ANBEX:

ANBEX, Inc  
35246 U.S. 19 N., #284  
Palm Harbor, FL 34684  
[www.anbex.com](http://www.anbex.com)

Thank you for your purchase of IOSAT

In accordance with government regulations, IOSAT (potassium iodide, USP) is to be taken only at the direction of public health officials in the event of a nuclear emergency.

Store IOSAT at room temperature, in a dry environment. Do not open foil blister packets. Please follow all labeling instructions.

If kept dry and unopened, IOSAT can be expected to last for many years.

For additional information about IOSAT, please see the ANBEX web page, or write to us at the above address.

### IOSAT Tablets

<b>Directions for use:</b> Use only as directed by State or local public health authorities in the event of a radiation emergency	<b>WARNING: POTASSIUM IODIDE SHOULD NOT BE USED BY PEOPLE ALLERGIC TO IODIDE</b>	Store at controlled room temperature between 15 C and 30C (59 and 86 F)  Keep package dry and foil packets intact.
<b>DOSAGE: Adults and Children</b> 1 year of Age or Older: One tablet once a day. Crush for small children. <b>Babies Under 1 Year of Age:</b> One-half tablet once a day. Crush first. Take for 10 days unless directed otherwise by State or local health authorities.	Keep out of the reach of children. In case of overdose or allergic reaction, contact a physician or public health authority. Read the accompanying labeling for precautions and side effects.	NDC 51803-001-01  Distributed by: <b>ANBEX, INC</b> 15 West 75 <sup>th</sup> Street New York, New York 10023



IOSAT Tablets package insert:

<p><b>IOSAT Tablets</b> <b>(Potassium Iodide Tablets, U.S.P.)</b> <b>(Abbreviated KI)</b> TAKE POTASSIUM IODIDE ONLY WHEN PUBLIC HEALTH OFFICIALS TELL YOU. IN A RADIATION EMERGENCY, RADIOACTIVE IODINE COULD BE RELEASED INTO THE AIR. POTASSIUM IODIDE (A FORM OF IODINE) CAN HELP PROTECT YOU. IF YOU ARE TOLD TO TAKE THIS MEDICINE, TAKE IT ONE TIME EVERY 24 HOURS. DO NOT TAKE IT MORE OFTEN. MORE WILL NOT HELP YOU AND MAY INCREASE THE RISK OF SIDE EFFECTS. DO NOT TAKE THIS DRUG IF YOU KNOW YOU ARE ALLERGIC TO IODINE (SEE SIDE EFFECTS BELOW).</p>	<p><b>WARNING</b> PEOPLE ALLERGIC TO IODIDE SHOULD NOT USE POTASSIUM IODIDE. Keep out of the reach of children. In case of overdose or allergic reaction, contact a physician or public health authority.</p> <p><b>DESCRIPTION</b> Each IOSAT Tablet contains 130 mg. Of potassium iodide.</p> <p><b>HOW POTASSIUM IODIDE WORKS</b> Certain forms of iodide help your thyroid gland work right. Most people get the iodine they need from foods like iodized salt or fish. The thyroid can "store" or hold a certain amount of iodine.</p> <p>In a radiation emergency, radioactive iodine may be released in the air. This material may be breathed or swallowed. It may enter the thyroid gland and damage it. The damage would probably not show itself for years. Children are most likely to have thyroid damage.</p> <p>If you take potassium iodide, it will fill up your thyroid gland. This reduces the chance that harmful radioactive will enter the thyroid gland.</p> <p><b>WHO SHOULD NOT TAKE POTASSIUM IODIDE</b></p> <p>The only people who should not take potassium iodide are people who know they are allergic to iodide. You may take potassium iodide even if you are taking medicines for a thyroid problem (for example, a thyroid hormone or antithyroid drug). Pregnant and nursing women and babies and children may also take this drug.</p> <p><b>HOW AND WHEN TO TAKE POTASSIUM IODIDE</b> Potassium iodide should be taken as soon as possible after public health officials tell you. You should take one dose every 24 hours. More will not help you because the thyroid can "hold" only limited amounts</p>	<p>Of iodine. Larger doses will increase the risk of side effects. You will probably be told not to take the drug for more than 10 days.</p> <p><b>SIDE EFFECTS</b> Usually side effects of potassium iodide happen when people take higher doses for a long time. You should be careful not to take more than the recommended dose or take it for longer than you are told. Side effects are unlikely because of the low dose and the short time you will be taking the drug.</p> <p>Possible side effects include skin rashes, swelling of the salivary glands, and "iodism" (metallic taste, burning mouth and throat, sore teeth and gums, symptoms of a head cold, and sometimes stomach upset and diarrhea).</p> <p>A few people have an allergic reaction with more serious symptoms. These could be fever and joint pains, or swelling of parts of the face and body and at times severe shortness of breath requiring immediate medical attention.</p> <p>Taking iodide may rarely cause overactivity of the thyroid gland, underactivity of the thyroid gland, or enlargement of the thyroid gland (goiter).</p> <p><b>WHAT TO DO IF SIDE EFFECTS OCCUR</b> If side effects are severe or if you have an allergic reaction, stop taking potassium iodide. Then, if possible, call a doctor or public health authority for instructions.</p> <p><b>HOW SUPPLIED</b> IOSAT Tablets (Potassium Iodide tablets, U.S.P.): packages of 14 tablets (NDC 51803-001-01): Each white, round, scored tablet 130 mg. Potassium iodide.</p> <p>Distributed by <b>ANBEX, INC.</b> 15 W 75<sup>th</sup> St., New York, N.Y. 10023</p>
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Sample Consent Form, Alabama:

**HOW POTASSIUM IODIDE WORKS**

In a radiation emergency radioactive iodine may be released in the air. This material may be breathed or swallowed. It may enter the thyroid gland and damage it.

If you take potassium iodide, it will saturate your thyroid gland with nonradioactive iodine. This reduces the chance that harmful radioactive iodine will be absorbed by the thyroid gland.

**SIDE EFFECTS**

Usually, side effects of potassium iodide happen when people take higher doses for a long time. You should be careful not to take more than the recommended dose or take it longer than you are told. Side effects are unlikely because of the low dose and the short time you will be taking the drug.

Possible side effects include skin rashes, swelling of the salivary glands, and "iodism" (metallic, burning mouth and throat, sore teeth and gums, symptoms of a head cold, and sometimes stomach upset and diarrhea).

Taking iodide may rarely cause overactivity of the thyroid gland, underactivity of the thyroid gland, or enlargement of the thyroid gland (goiter).

**WHAT TO DO IF SIDE EFFECTS OCCUR**

If the side effects are severe or if you have an allergic reaction, stop taking potassium iodide. Then, if possible, call a doctor or public health authority for instructions.

**WHO SHOULD NOT TAKE POTASSIUM IODIDE**

The only people who should not take potassium iodide are people who know they are allergic to iodide. You may take potassium iodide even if you are taking medicines for a thyroid problem (for example, a thyroid hormone or antithyroid drug). Pregnant and nursing women and babies may also take this drug.

**PLEASE KEEP THIS PART OF THE INFORMATION SHEET FOR YOUR RECORDS**

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I have read the information on this form about Potassium Iodide. I have had a chance to ask questions which were answered to my satisfaction. I believe that I understand the benefits and risks of Potassium Iodide and request that it be given to me or to the person names below for whom I am authorized to make this request.

**INFORMATION ON PERSON TO RECEIVE POTASSIUM IODIDE**

Name (Please print) Birthdate age

Address

Zip

Signature of person to receive iodide or Date  
person authorized to make the request

Note that the side effects listed in the Alabama consent form differ somewhat from those listed in the IOSAT tablet insert. This "may" be because Alabama provides tablets manufactured by Carter Wallace.



## **Payment**

Town Meeting may decide that the public has already paid for the KI supply with their tax dollars so should receive it "free" or they may decide that the public should reimburse the Town for KI, at cost.

If the public is to pay for the KI, payment will be recorded on a Payment Record Sheet. Monies will go to Duxbury's General Fund.

### Sample, Payment Record Sheet Potassium Iodide Tablets Duxbury Town Hall

Name	Address	Date	Amount	Staff Member in Charge
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## **KI Administration:**

1. Civil Defense Director will administer program.
2. Duxbury Board of Health shall advise on proper storage and disposal of KI with advice MDPH.
3. Civil Defense Director will train staff at Town Hall, Tremont Street.
4. KI Kit will include:  
  
KI Tablets  
Consent Forms  
Manufacturers Insert  
Payment Record Sheet, if public is to pay
5. Consent forms and Payment Record Sheet shall be kept on file with Civil Defense Director.
6. Monies received will go into General Fund.

## **DOSAGE**

We recommend the pre-distribution of a package of tablets to the general public that chooses to pick up their personal supply at Town Hall. It would provide an individual with a ten- day supply as recommended by the manufacturer.

## **In the Event of an Emergency - moving remainder of stockpile to Braintree Reception Center:**

In the event of an emergency, the public should immediately follow the emergency response call. They should not try to obtain KI at this time.

It should be understood, in the event of an emergency, that the supply at Town Hall will NOT be available for the public at the Town Hall. It will be moved to Braintree, the Reception Center. There, it will be made available to Duxbury residents on a first-come-first-serve basis based upon our established prioritization.



1. As a first priority, KI should be given to people showing evidence of contamination.
2. As a second priority KI should be given to pre-school and school-aged children. KI should be given to women declaring themselves pregnant.
3. As a third priority, other adult members of the general public who request KI should be given KI.

150,000 tablets would initially be at Town Hall, if the Town stockpiled the Town Hall with an amount sufficient for the population. We cannot predict the number of tablets that would remain in the unlikely event of an accident.

Essentially the same procedure would follow at the Reception Center as that outlined in the Shelter Protocol.

Prepared for the committee by,



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